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36. IP TERMINAL RANGE: AASTRA 5361IP, 5370IP, 5380IP

The range of proprietary Aastra IP terminals comprises three models designed to meet all user requirements: 5361ip, 5370ip and 5380ip.

The Aastra 5300ip range



This range is common to the Ascotel and Aastra 5000 platforms.

These proprietary Aastra phones are managed from Aastra 5000 version R5.1A, except the Aastra 5361ip which is available from Aastra 5000 R5.3, on the Aastra X Series and Aastra 5000 Server systems.

The intelligence of these terminals is located in the Call Server.

Some models can be fitted with extension modules to add extra programmable keys for more demanding requirements.

The main idea behind this range is to combine technology and innovating concepts with simplicity of use.

The phones are designed to be technologically very advanced while being simple to use and accessible to all users without the need for particular training.

36.1 Ergonomics and design

For the Aastra 5370ip and 5380ip terminals, the screen is divided into three parts:

- The top line is used to display the icons
- The middle line is used for information to be displayed.
- The bottom line of the screen is used for virtual/interactive keys.

For the Aastra 5361ip terminal, the screen is divided into 2 parts :

- The top line is used to display the icons
- The bottom line of the screen is used for to display text and the interactive menu.

Information available on the terminal

The screensaver/terminal-inactive screen displays some information in text form or as icons.

Certain types of information appear on the screen and disappear after a delay, for example: "Transfer deactivated"

Certain types of information will disappear only after a confirmation by the user, for example: "2 calls unanswered"

The following icons are available:

	Transfer on no answer, on busy or immediate.
	Incoming call not answered
	Parked call
	Loudspeaker
	Microphone off
	Headset
	Lock
	General deactivation of programmed features
	Alarm
	Encrypted voice
	Message
	Group deactivation
	Message in voice mailbox
	Dual Homing

Certain icons are not available on the 5361ip.

Certain items of information will be available only by navigating through the programming menus.

The screen:

The screen on the 5361ip set has two lines: the first line displays icons, and the second line is used to display information and the interactive menu (16 characters)

The screen on the 5370ip set has five lines, three of which are for information (each line can have 22 characters). The line of virtual keys can control two fields.

The screen on the 5380ip set has seven lines, five of which are for information (each line can have 30 characters). The line of virtual keys can control three fields.

Although the screen orientation cannot be adjusted, a base underneath the phone can be arranged in different positions to change the angle of the phone on the desk (there are two possible positions: 25 or 40 degree inclination). Changing the contrast also helps to improve legibility on the screen.

On the Aastra 5380ip, the backlit improves the legibility.

Terminal: size (mm) and arrangement

*Display of the user name:*

- On idle screen or call screens, display of:
 - p.name** (20 characters max) with p = first letter of the given name and name = family name
 - or : **name** (20 characters max) if no given name is available
 - or : **number** if name not find
- Following a search by name, display of p.name (20 characters max) and of the full given name.

Interactive virtual keys and navigation menu

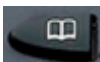
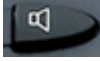


Virtual keys on the 5361ip, 5370ip and 5380ip (Fox key)

4-ways navigation keys on the 5361ip, 5370ip and 5380ip

Function key modules



-  The absence management key with an accompanying LED is for managing a transfer programmed by the user, but this key can also be used as a conventional programmable key, for example programmed to directly call the voice messaging system.
-  Redial key (last number redial)
-  Directory key
-  Cancel key
-  Hang-up key
-  Microphone off
-  Handsfree – amplified listening – loudspeaker
-  Volume control (handset, headset (on Aastra 5370ip and 5380ip), ringer, loudspeaker)

The interactive keys are available on all the phones:

- one virtual key on the 5361ip,
- two virtual keys on the 5370ip,
- three virtual keys on the 5380ip.

LEDs visible from the front and back of the phone

The LEDs are located at the top right of the phone (see the diagram of the phone)



Ringing tone control

From Aastra 5000 R5.1B, the ringing tone will differ according to whether a caller is internal or external.

Navigation keys



From R5.2, when a user dials a number, the navigation keypad can be used to browse into the whole number: like a cursor.

Before R5.2, if the user made a mistake, he had to suppress the already typed number and start again (from the beginning including the prefix).

From this release R5.2 user can erase, suppress or add a digit inside an already typed number. The cursor through the navigation key allows him to navigate on the left or on the right directions inside the very number.

Example, user dials 001309743, he can replace 7 by 6 without starting again from the beginning or suppressing the last 2 digits (43).

M530 extension modules

An extension module is available having 20 keys with LEDs. The module can be added to the 5370ip and 5380ip terminals without adding a power supply.





Note: the extension module with LCD screen is currently unavailable for the Aastra 5000 range.

From Aastra 5000 R5.2, 5380ip and its specific M530 extension module offer the management of the LED's colour.

CCO keys are programmed on the extension module light up in different colours depending of the kind of calls.

- LED is orange (blinking) for incoming call.
- LED is green (steady) during an established communication.
- LED is red if a call is missed and during key's programming.

Headset jack (from R5.1B step 1)

The 5380ip and 5370ip phones incorporate a headset jack with automatic headset detection. When the headset is set to the automatic position, calls are taken directly on the headset without any action needed by the user.

The integrated port with DHSG standard allows having important functionalities – such as automatic hang up and off-hook – directly from a headset. A specific DHSG cable is then necessary to provide these functions

When the headset is connected to the phone, it replaces hands-free mode.

When the telephone is used in headset mode rather than standard mode, a second person can pick up the handset to monitor the conversation (only if handset reception is activated). The handset can be hanging up at any time.

This operating mode is particularly useful for users who would be in a Call Centre training, or those who ask for a discreet listening to a colleague.

36.2 Aastra 5361ip, the indispensable terminal

The Aastra 5361ip has been introduced to complete and enrich the range of IP terminal Aastra 5300ip (from A5000 R5.3).

It includes programmable keys with LED (facilitating the supervision, management of multi-line, CCO, Intercom ...).

Ergonomics of the Aastra 5361ip



Main features:

- The phone's screen has two lines: one to display icons and one for general information
- The virtual keys line is also available on the lower line, alternating with the displayed information.
- The navigation keypad in menus is also available
- 10 programmable keys **with integrated LEDs** to facilitate supervision, multi-line management, etc.
- 8 keys are predefined.
- Two types of LEDs: Message lamp and status of the telephone, ringing, on call, etc.
- Wall mounting
- On hook line seizure
- Mute
- 8 ring tones
- Handset volume adjustment
- Loudspeaker, amplified listening
- Access to the last call made and to the last six calls received (one internal call and the five last external calls)
- Access to the call log:
 - incoming calls, 50 numbers (internal / external) + indication of calls answered and missed calls.
 - outgoing calls and callbacks (bis): last 30 numbers.

- Compatible with standard 802.3af
- No extension key module
- No headset jack
- No integrated switch

36.3 Aastra 5370ip: the "mid-range" terminal

5370ip keys



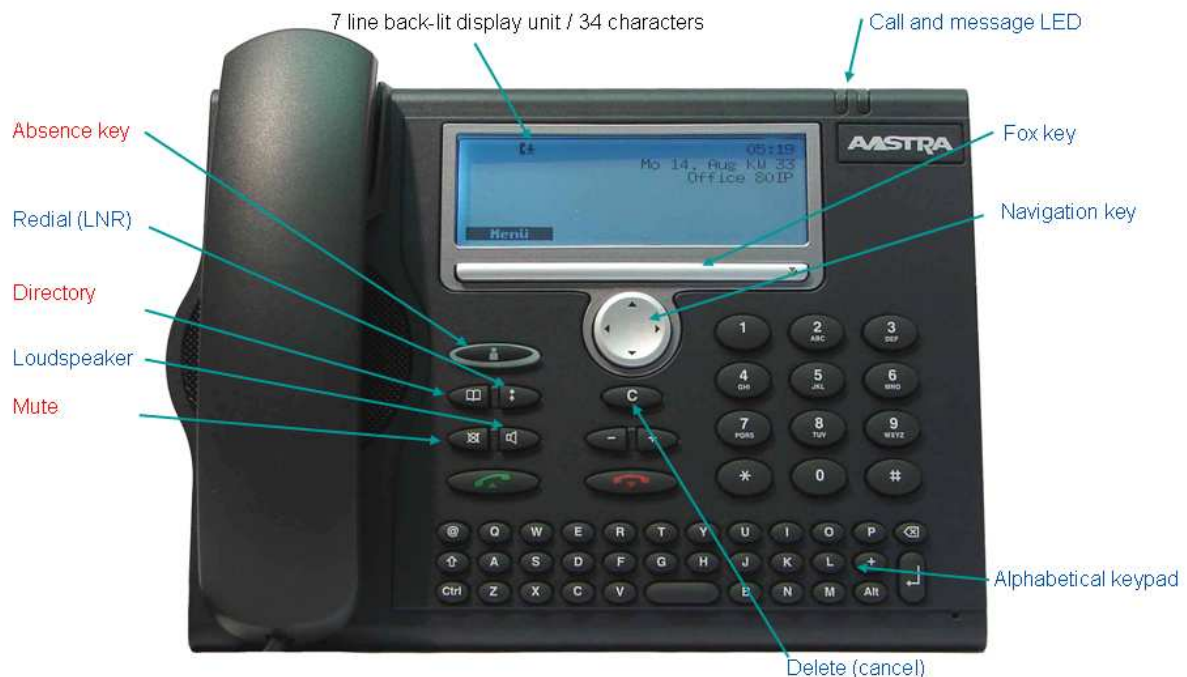
Main features:

- The phone's screen has **5 lines of 22 characters**: The top line is for displaying icons. The three middle lines show all the information to be displayed, and the bottom line of the screen is used for virtual keys/interactive menu.
- **Virtual key 2 inputs (FoxKey)**
- The navigation keypad in menus is also available (supports intercom, manager/secretary filtering functions)
- **12 programmable keys** with integrated LEDs
- 8 keys are predefined.
- Two types of LEDs: Message lamp and status of the telephone, ringing, on call, etc.
- Wall mounting
- Extension module possible; maximum of 1 module per phone.
- **Full duplex** hands free
- Amplified listening
- Mute
- 8 ring tones
- Handset volume adjustment
- Loudspeaker volume adjustment
- On hook line seizure
- **Headset jack** with automatic headset detection – compatible with the DHSG standard
- Access to the call log:

- incoming calls, 50 numbers (internal / external) + indication of calls answered and missed calls.
- outgoing calls and callbacks (bis): last 30 numbers.
- Compatible with standard 802.3af
- **Integrated 10/100Mbit/s mini switch**; the PC port can be deactivated by configuration.
- One 20-key **extension module M530**

36.4 Aastra 5380ip: the "Top of the range"

5380ip keys



Main features:

- The phone's screen is backlit and has **7 lines of 34 characters**: The top line is for displaying icons/virtual keys. The three middle lines show all the information to be displayed. The navigation keypad in the menus is also available. The bottom line of the screen is used for virtual keys/interactive menus.
- The navigation keypad in menus is available
- Virtual key **3 inputs** (FoxKey)
- 8 keys are predefined.
- Two types of LEDs: Message lamp and status of the telephone, ringing, on a call, etc.
- Wall mounting
- Full duplex hands free
- Amplified listening
- Mute
- 8 ring tones
- Handset volume adjustment
- Loudspeaker volume adjustment
- On hook line seizure
- Headset jack with automatic headset detection – compatible with the DHSG standard
- **Back lit display**

- **Integrated alphabetic keypad** (QWERTY or AZERTY)
- **Recording of 10 personal speed dialing on digital keypad**
- Access to the call log:
 - incoming calls, 50 numbers (internal / external) + indication of calls answered and missed calls.
 - outgoing calls and callbacks (bis): last 30 numbers.
- Compatible with standard 802.3af
- Integrated 10/100Mbit/s mini switch; the PC port can be deactivated by configuration.
- **up to three extension modules M530**

36.5 Comparison of features of the Aastra 5300ip terminals

For more detailed information, see chapter 10 of the Product Guide, "Compatibility and sizing tables" – "Phones" section.

Characteristics	5361ip	5370ip	5380ip
Incoming call and message waiting LEDs	•	•	•
Screen	1*16 alpha chars	5*22 alpha chars	7*34 alpha chars
Screen backlighting			•
Navigation keys	•	•	•
Interactive keys	1 input	2 inputs	3 inputs
Call key	•	•	•
Hang-up key	•	•	•
Redial key	• (last number dialled)	• (last number dialled)	• (last number dialled)
Directory key	•	•	•
Loudspeaker key	•	•	•
Microphone key	•	•	•
Volume control key	•	•	•
Absence key with LED	•	•	•
C key	•	•	•
Programmable keys	10 (with LED)	12 (with LEDs)	
Alphabetic keypad			• QWERTY or AZERTY
Call by name (access to the Aastra 5000 directory)	•	•	•
Listening on loudspeaker	•	•	•
Hands-free		•	•
Conference call	•	•	•
Free seating (including call logbooks) from Aastra 5000 R5.2	•	•	•
Notebook feature from Aastra 5000	•	•	•

Characteristics	5361ip	5370ip	5380ip
R5.2			
Maintenance set (motel management) from Aastra 5000 R5.2		•	•
Voice messaging	Via virtual keys	Via virtual keys	Via virtual keys
Lock	•	•	•
Headset jack		•	•
20-key extension module M530		1	3
Contrast control	•	•	•

	5361ip	5370ip	5380ip
Interphone		•	•
Intercom	•	•	• (with M530)
Manager/assistant filters	•	•	• (with M530)
User name displayed	•	•	•
Date and time displayed	•	•	•
Multi-line	•	•	• (with M530)
Multi-MCDU	•	•	•
Q23 DTMF over dialing	•	•	•

	5361ip	5370ip	5380ip
Dialing without off-hook	•	•	•
MWI LED	•	•	•
Personal directory			
Incoming calls log from R5.2	• (50)	• (50)	• (50)
Outgoing calls log from R5.2	• (30)	• (30)	• (30)
Transfer of the incoming calls log to a private directory			
Direct call to the voicemail	Foxkey	Foxkey	Foxkey
Private directory *	10 abbreviated numbers	10 abbreviated numbers	10 abbreviated numbers

* Limited to 255 users

Technical information

Available interfaces:

	Switch	Headset jack	Class	802.3af
Aastra 5361ip			Class1	X
Aastra 5370ip	X	X	Class2	X
Aastra 5380ip	X	X	Class2	X

Note: the phone switch can be deactivated via the administrator MMI

802.3af standard supported or external power supply.

802.1X norm for terminal's authentication on the network

Codecs:

- G722 (from R5.3) : this broadband codec gives an excellent end-to-end voice quality (Aastra Hi-Q™) for Aastra 6700i and 5300ip communications as well as SIP trunks
- G.711 A-law and μ -law, 20, 30ms
- G.723.1 and G.723.1A 30 ms, 60 ms
- G.729 and G.729A 20, 30 and 40 ms

Support of the RTCP XR (RTP Control Protocol Extended Reports) protocol - from R5.3:

This protocol for VoIP management defines a set of parameters that contain information for assessing VoIP call quality and diagnosing problems. The IETF defines RTCP XR in RFC 3611.

It is compatible with the QoS monitoring application (such as Service Pilot).

It gives indications on the MOS (Mean Opinion Score) criteria of voice quality.

It gives information on:

- Delay (time),
- Jitter,
- Packet losses.



36.6 Functions accessible from pre-programmed keys

Redial (no LED): Access to the last number dialed.

With the redial key, in idle mode, the user can consult the number before triggering the call.

Hands free (hands-free mode only available on 5361ip, 5370ip and 5380ip) / Amplified listening / Interphone.

- Lets the user switch to hands-free/AL mode during a call
- Lets the user answer in hands free mode when the phone rings
- Lets the user switch to Interphone mode when the telephone is idle
- For internal calls the interphone function provides automatic receiver pick-up with shifting to hands-free after ringing. It cannot be used with multi-key and multi-line operations. Unavailable on 5361ip.
- Amplified Listening (no LED). This mode has two phases: a phase 1 during which it is possible to switch to hands-free mode (10 seconds); after this delay, the phone is in amplified listening mode only.
 - Note: when AL mode is activated, this is indicated on the phone's screen.
 - Hands-free mode
 - Headset mode (available on 5370ip and 5380ip from R5.1B): When the headset is plugged in, it is possible to listen to the conversation on the phone's loudspeaker by pressing the interphone key; in this case, the conversation will also be heard in the headset.
 - Headset mode with listening on handset (available on 5370ip and 5380ip from R5.1B)

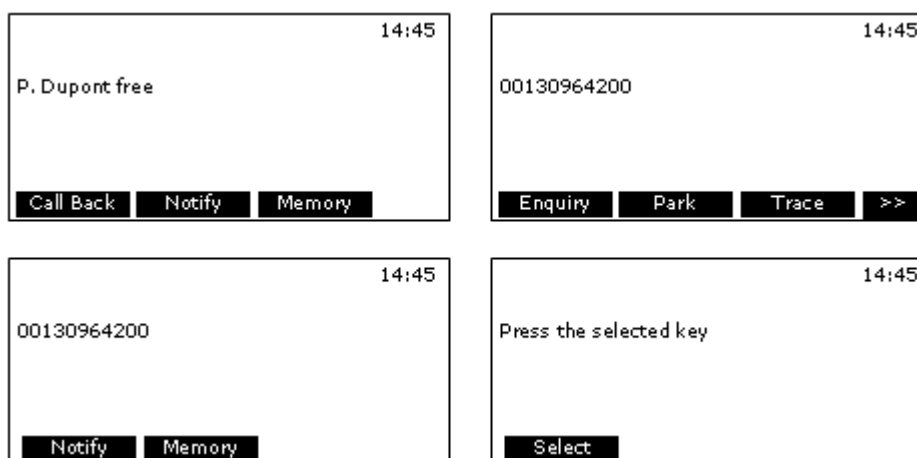
Microphone off (no LED): This deactivates the microphone.

Note: When "microphone off" is activated, this is indicated on the phone's screen.

Bloc Note / Memory feature - from Aastra 5000 R5.2

Bloc Note / Memory feature is designed for the user in order to let him register the remote party number/name in his directory while in communication; this for both incoming an outgoing communication.

This feature is accessed though the « memory » navigation key during the communication.



Hotel Management features (available on 5370ip and 5380ip) - from R5.2

This function is available from the fox key: Menu / Server / Hotel.

```

== Main Menu ==      14:45

Forwarding
Settings
VoiceMail
Server
Messages
Select.
  
```

```

== Server ==         14:45

Hotel

Select.
  
```

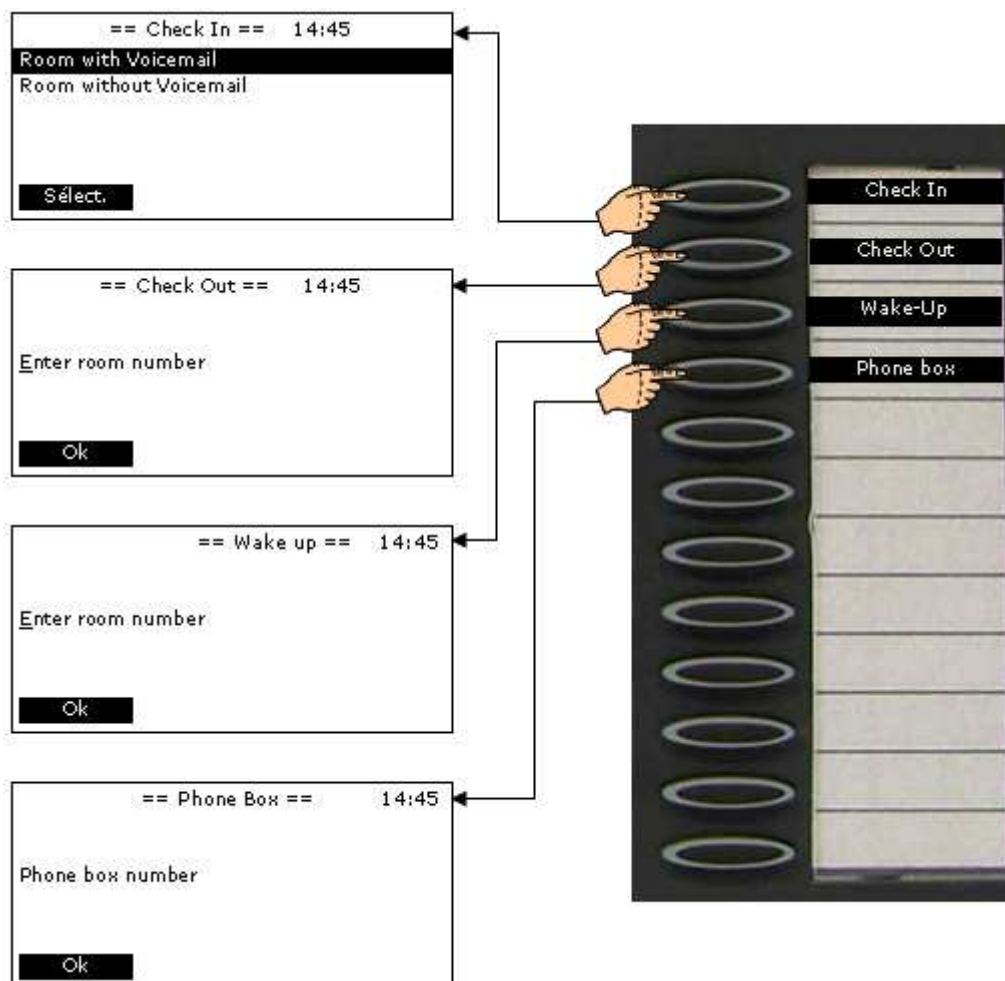
```

== Hotel ==          14:45

Check In
Check Out
Wake Up
Phone Box

Select.
  
```

User can program some keys with the check-in / check-out / Wake-Up / Phone box. These keys must be programmed from the administrator.



36.7 Functions accessible from customisable keys

Programming the programmable keys: the LED of each programmable key flashes rapidly during programming. All the other LEDs are off.

36.7.1 Basic dialing

A key can be programmed for any type of dialing:

- An internal phone or group of phones.
- An external subscriber (full or partial PSTN number, common speed-dial number, etc.)
- Network socket prefix or TL
- Part of a number to be completed on the keypad or by another key

Pressing the key causes the programmed number to be dialled immediately if the telephone is idle or with holding of the party if the telephone is being used for a single call.

The numeric keypad keys of the 5380ip phone are programmable pressing the speed-dial keys and keeping them pressed: 10 programmable numbers in total.

36.7.2 Features

The main codes for services offered by the numbering plan can be programmed.

Where services involve an element of activation and deactivation, the LED is used to indicate activation of the function (locked, call forward, do not disturb, standby, etc.).

The LED is not used for other services (pick-up, etc.).

Functions such as store redial or hold are programmed on a monitoring key by the administrator by MMC.

Store redial (with LED): allows a dialled number to be stored and redialled by pressing a single keystroke. The LED lights up when a number has been stored.

Enquiry call - from R5.3:

During an enquiry call, it is possible on the Aastra 5380ip to access to the Aastra 5000 directory to transfer the call.

Direct access to the directory for a call transfer



Hold (with LED): for placing a caller on hold in order to resume the call later from the same phone. The call hold feature is available by code. Call resume is available via interactive keys.

The user can program a call forwarding from a phone other than his own. This is the *follow me* function.

The keys can be programmed with the following functions:

- Number dialing
- Call forwarding activation
- Intercom, without possibility of viewing the call before answering it
- Filtering

36.7.3 Intercom function

This function (supervision) is particularly suited to people working in a team and supporting each other by phone

Each person in the group can be assigned a key (with indicator) in order to:

- be able to call each person in the group by a single keystroke
- see at any moment whether the terminals are free or busy

Each user chooses which persons in the group are to be shown and assigns them a key with an indicator. This key has the following functions:

- Indicator off: phone not in use; press the key to call this extension directly.
- Indicator blinking slowly: there is an incoming call to this extension and an audible beep can be heard as programmed. The call can be picked up by pressing the key.
- Indicator permanently on: the phone is busy. Press the key to call the busy extension e.g. to activate the automatic callback function.
- Indicator blinking rapidly: on hold, confirmation/end of programming, etc.

36.7.4 Intercom intercept function

This function limits the intercom function to call pick-up only. As soon as a call arrives, the related indicator on the terminals which belong to the call pick-up group (only one pick-up group can be assigned this function) starts to blink.

The call can be picked up by pressing the related key. If the party who was originally called picks up the call, the related indicator does not light up on the group extensions.

If the indicator on an extension is not lit, the extension cannot be called by pressing the corresponding key on another terminal.

36.7.5 Multi-key function

A set equipped with this function can handle more than two simultaneous calls for the same extension number. One of the calls is active at a certain moment, whereas the others are on hold.

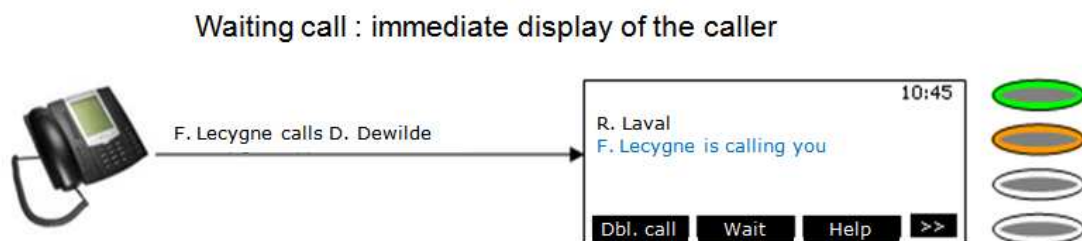
This function is particularly useful for extensions that are used for the filtering of several manager lines and thus allows these extensions to have several calls on hold. It is also useful for reception extensions as it allows them to handle several simultaneous call circuits.

This function is implemented on the telephone by defining the required number of customisable keys. Each key is assigned to one call, i.e. to put an active call on hold, the user simply presses the on-hold key. The previously active call is automatically put on hold and vice versa.

Each key programmed in this manner allows the user to accept an incoming call or to set up a single or double outgoing call which activates the classical double call features (alternating, conference, transfer).

From Aastra 5000 R5.3: On a multi-CCO terminal Aastra 5300ip in ringing mode: automatic caller display on the free CCO:

- During the call, new caller display is automatic.
- The function is available in an association or in a hunt group.
- The display is refreshed: a new call replaces the previous display.
- For the terminal with a single-line screen (5361ip), the same information is accessible. Press the Fox key or the CCO key.



The indicator assigned to each key shows the current state of the call.

The corresponding extension is shown as free if at least one of the keys is free. It is shown as busy if all the assigned keys are busy.

36.7.6 Multi-line function

The multi-line function can be used to assign separate directory numbers in order to identify traffic of the various directory numbers and to manage each number independently (filtering, call forward, etc.). Each directory line is assigned to one or several keys programmed as multi-keys.

This feature is mainly used for the following applications:

- Separate private lines and business lines
- Separate internal lines and external lines
- ACD type reception to separate personal calls from filtered calls or to separate filtered calls of different managers filtered by the same assistant.

The function is implemented in the same way as the multi-key function, with a directory number selection in addition.

36.7.7 Manager / assistant filters

The filter function enables a "manager" terminal to forwards calls to an "assistant" terminal while monitoring them.

This feature provides filtering service such as one user can filter calls to another user (example: Assistant/Manager). It needs 2 programmable keys on the "assistant" terminal (filtering terminal) and 2 programmable keys on the "boss" terminal (filtered terminal); one to activate/deactivate the filter's feature and the other to monitor's filtered calls.

Filtering is a multi-site Aastra 5000 feature.

Specific operating rules:

Simple filtering: One manager, one assistant

The following keys can be programmed on the manager's terminal:

- An activate/deactivate key which shows the current filtering status,
- A restricted intercom key, with the assistant's number, enabling him/her to:
 - call the assistant
 - view his/her status (free/busy)
 - answer his/her calls when the assistant fails to answer

The following keys can be programmed on the assistant's terminal:

- An activate/deactivate key
- A restricted intercom key, with the manager's number, enabling him/her to:
 - call his/her manager
 - view his/her status
 - answer his/her manager's calls when filtering is disabled

On his/her phone display, the assistant can see whether a call is meant for him/her or the manager.

Help between assistants

Several assistants can monitor each other by using the intercom key to take a call which has not been picked up.

The "forwarding override" function enables an assistant who has answered a call to bypass it in such a way that the call is transferred to a manager other than his/hers.

One assistant, several managers

For the manager, this function works in the same way as "One manager, one assistant, simple filtering".

The assistant's terminal must be programmed for each manager (two keys per manager).

The assistant is also advised to use a programmed key for switching to general standby mode. By pressing this key, the assistant prevents any filtering during his/her absence.

One (or more) manager(s), one group of assistants

The manager must enable filtering by programming his/her forwarding with his group number.

Any secretary wishing to disable his/her filtering function activates the group standby mode (or general standby mode). The Aastra 5000 software automatically activates the filtering on standby when the last assistant enters standby mode. It is only restored when an assistant reactivates the filtering function.

Multi-line terminals

It can be useful to assign two line numbers to each terminal:

Manager	Assistant
Unfiltered personal number	Personal number for his/her calls
Filtered number	Filtered manager numbers

This enables an assistant already on the phone to receive and transfer calls to his/her manager.

This function can be improved by programming an executive key system function between the assistant and the manager.

The executive key system function is equivalent to having a leased line between two parties on the same Aastra 5000 network (which can be a multi-site network).

To activate this function, each user just programs one key on his terminal as a monitoring key for the other terminal. This key and its associated LED provide the following functions:

- conversation circuit reserved for remote calls. This function is used to view and pick up a call from the programmed number, even if the terminal is about to take the call (or is busy).
- possibility to call a remote party using a single key. The programmed number is always visible even if the person is on the phone.

36.7.8 Privileged intercom

This function provides an opportunity for an IP terminal to always have a dedicated voice circuit for a privileged party on the same Aastra 5000 (possibly multi-site) network, letting the user display calls from the privileged party and call the privileged party with a single keystroke.

To be implemented, each party has to program a key on his terminal as a privileged intercom of the terminal of the other party. Both parties are "privileged".

This key and its associated LED allow the following functions:

- a conversation circuit is reserved for calls from the remote party. This feature allows you to view and take a call from the privileged remote party even if a call is in progress (or if the terminal is busy in the second degree),
- ability to call the remote party by pressing a key. The privileged remote party will always be seen free even if it has a call in progress.

36.7.9 Information message lamp

The LED associated with a key of a digital terminal can be programmed so that it can be switched on or off by the user.

This application is essential to show (in a hotel environment or similar) that a message has arrived (written or voice message, etc.). Depending on the case, the instruction can be issued by a code or via the external application interface (EAI).

36.8 Functions of the display and of the interactive keys

36.8.1 Language selection

The user can choose the language in which information is displayed on IP sets. A choice of five languages is available on a single site.

The five languages available on the phone are those available at the Aastra 5000 end.

The default language is the factory-loaded language in the Aastra 5000 software.

The administration interface language will be available in English only.

36.8.2 Ringtone selection

Ringer adjustment (with LED): allows the desired melody to be selected (eight different ringtones). When the user has selected a ringtone, he/she can listen to it before activating it. After selecting the melody, the activated melody number can be viewed in the "activated features" menu. The speed at which the melody is played can also be controlled.

36.8.3 Idle display

Some messages are displayed in order of emergency even when the set is idle. This allows a person entering the office to quickly assess the telephone events that have occurred in his absence.

The main messages/icons are as follows:

- new voicemail messages
- flagging of the last unanswered calls, with a pop up message indicating the number of unanswered calls. The user may then read the list of unanswered calls including the time and date when they were missed and the name and/or number of the caller party.
- messages left by internal callers
- phone status (calls forwarded, locked, etc.)
- call forwarding activated or "Do not disturb" function

In idle mode, the line of icons indicates: transfers activated, presence of an unanswered incoming call, presence of a parked call, speaker mode activated, microphone-off activated, headset connected, phone locked, general deactivation of programmed features, alarm programmed, message present.

The 5370ip and 5380ip phones in idle mode always display the extension number and/or the name of the user (managed by the administrator for the whole site).

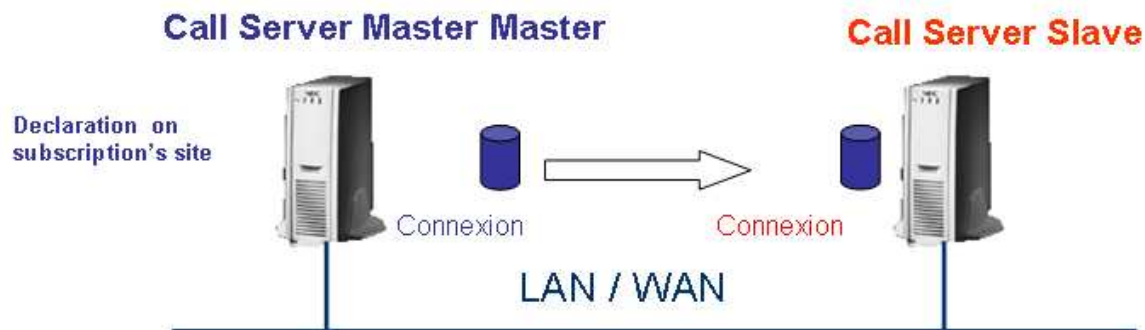
36.8.4 Received calls log

With Aastra 5000 R5.1, this feature offered to show the numbers corresponding to the last calls received (1 internal number, 5 external numbers).

From Aastra 5000 R5.2, on the A5300 range the incoming call log is able to manage up to 50 numbers (no screening between the call's origin internal/external), the outgoing call log is able to manage up to 30 numbers.

Both the incoming and outgoing call logs are duplicated from the Master Call Server (where the subscription is declared) to the Slave Call Server

- If the Master Call Server switches on the Slave Call Server, the user retrieves all his call logs.
- When the Slave Call server switches back to the Master one (manual or automatic action), data from the slave server are copied on the master server.



The user accesses to the call log through "Menu" / "Call List" or through the navigation pad.

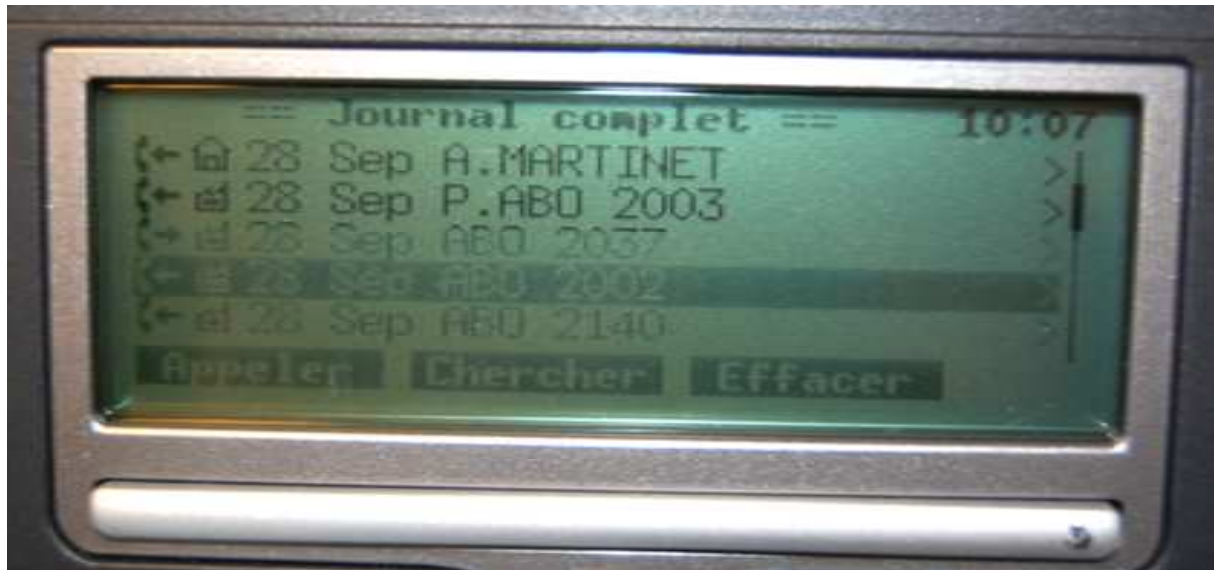
The user accesses to the outgoing call log by pressing the LNR (Bis) key.

The « call log » shows the user both the kind of call (incoming / outgoing) and for incoming calls if the call has been answered / not answered (icon based information).

- Answered Call: ✓
- Unanswered Call: ✗
- Outgoing Call: 
- Incoming Call: 

For each record the following info are available:

- 1st Name
- Last Name
- Date and Time of the call
- Called or Calling number
- Number's status (Home, Office Mobile)
- Kind of incoming call (answered call or unanswered call)
- Number of event since last access



The user can suppress all or on a one by one way the incoming and outgoing call log.

A LED showed the user that a new call came in as per a blinking.

While in communication the user accesses the whole call log.

A pop-up message provides information on a received call while the user was away. The pop-up offers two choices: "VIEW" and "CLOSE". By pressing the VIEW button, the user can see the internal and external calls in the order they were received with time-stamp information available by pressing the arrow on the Fox key.

When viewing the log, the stored number can be called back automatically. When the log is full, a new call will erase the oldest. If a call is repeated several times, only the last one is stored.

36.8.5 Messages left

This feature allows messages to be exchanged between IP sets with a display and also with ISDN subscribers from the public network. These messages can be sent separately from a call (except for ISDN subscribers) or when a call is made if the called phone is busy or does not pick up.

Two types of messages can be sent:

- Predefined messages
- Free messages

36.8.6 Predefined messages

Six predefined messages can be displayed via the interactive keys on the 5380ip, some of which have to be completed by the user.

These messages are as follows:

XXX CALLED YOU AT	XX H XX + DATE
XXX CALL ME BACK BEFORE	YY H YY
XXX CALL ME BACK AFTER	YY H YY
XXX CALL ME ON EXTENSION	YYYY
CALL YYY ON EXTENSION	ZZZZ
CALL YYY ON EXTENSION	TTTT

XXX is filled in automatically by the Aastra 5000 software (the directory number is replaced by the name).

ZZZ is filled in automatically by the Aastra 5000 software and not converted into the directory name.

YYYY is filled in by the user.

TTTT is filled in by the user and not converted into the directory name.

36.8.7 Free messages

With 5380ip phones, it is possible to compose long UUS (User to User Signalling) messages of 40 characters for an internal phone (32 characters for a phone on the public network) using the phone's alphabetic and numeric keypads.

36.8.8 In-call displays

The displays and interactive keys are specific to each type of call and provide information about the following:

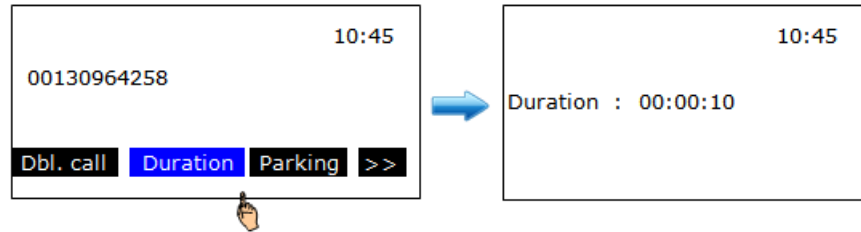
The caller ID:

- The name of the caller (up to 20 characters) for internal calls (requires an integrated directory)
If there is no integrated directory, the caller number is displayed
- The name of the network or TL trunk group for external calls
- Number of the external caller if provided by the public network (ISDN)
- Indication of the wording of the numbers dialled for emergency number calls.
- Indication of an immediate forwarding of the call to the phone.

Available operations:

- Conference call.
- Push-to-talk.
- Resume.
- Override.
- View a waiting call
- Automatic callback on phone busy or trunk group busy
- Transfer
- On-hold function
- Parking
- Discrete listening
- Intervention

- Display of call duration via interactive keys (for external calls only) – from R5.3



Only operations which are available to the user on the basis of their rights and the capability of the system are offered.

During a call, a second incoming call will be signalled by a beep and its presence displayed on the screen giving the user the option of viewing the waiting call or taking that second call.

The terminals can be multi-CCO, multi-line, multi-user, multi-directory.

System messages:

- Please enter your secret code.
- Appointment reminder.
- Operation not allowed.

36.8.9 Forward on ring – divert

This option allows the user to forward an incoming call, while the set is ringing, to another extension on the system or to voicemail if the extension being called has a voicemail box.

During a call, a waiting call can be viewed and rerouted without cutting off the ongoing call.

36.8.10 User-programmable features

Phone features (call forward, lock, substitution, etc.) can be set up on the phone using the display and dynamic keys without entering a specific code.

A specific function available on IP sets with a display allows the following functions to be viewed and cancelled if required: store, automatic callback.

36.8.11 Key programming help

36.8.11.1 Programming from the set

The display and the interactive keys guide the user by means of a pop-up menu.

The following options are available for programming a key on an IP set:

- Programming a number: Dialing
- Programming a feature: Call functions
- Programming a voice frequency code: DTMF

Programming of a voice frequency code can be used to access voice server services.

When the feature key is pressed, the IP set displays the choice of features available to the user in plain text:

- Programming a call forward: Immediate forwarding, forwarding on busy, forwarding on no answer, or predefined forwarding
- Programming an appointment time: Alarm
- Programming activation/deactivation of a group: Group deactivation
- Programming a filtered or filtering set: Filtering

The pop-up menu help is particularly important because the keys are not programmed very often and the user cannot be expected to remember a complex procedure. The pop-up menu means that the user does not need to refer to the set programming instructions.

36.8.11.2 External programming

Key programming can be carried out either from the operations and maintenance terminal or by the AM7450 administration server. The programmed keys can be locked so that they cannot be changed from the set.

36.8.12 Reading and cancelling forwarded calls to myself

This function, which is only available on IP sets with a display, allows the user to view and if necessary to cancel a programmed call forward by carrying out the operation at the set to which the calls have been forwarded.

This is most commonly used to cancel a programmed call forward to an extension by a user who had arrived there but who forgot to resume taking his/her calls (school office, meeting room, etc.).

36.8.13 Call by name

The call-by-name function is available on the 5380ip via the AZERTY or QWERTY keypad.

For 5361ip and 5370ip phones, call by name is available via the numeric keypad.

Call-by-name uses the internal and external Aastra 5000 directory: a search can be on an internal party or someone connected to the PSTN (if a record from the integrated directory is associated).

The call is made by entering the first letters of the name and choosing the correct option if more than one match is found.

The call-by-name function is available when the set is "idle" or on a call by simply pressing one of the keys on the keypad.

In the case of a multi-line phone, the call-by-name function is available only after the line is taken and the directory key is pressed.

36.9 Telephony features

Please see chapter 10 of the Product Guide: "Compatibility and dimensioning tables" – "FeaturesR5.4" section.

36.10 Compatibilities

The 5370ip and 5380ip terminals are compatible with the Aastra solution:

- Aastra X Series version R5.1A and latest
- Aastra 5000 Server version R5.1A and latest

The 5361ip terminal is compatible with the Aastra solution:

- Aastra X Series from version R5.3
- Aastra 5000 Server from version R5.3

36.11 Security

Locking a subscription on Aastra 5300ip (from R5.3)

Subscription locking reinforces the security of Aastra 5300ip terminals.

Thanks to the locking function, a user can prevent his terminals from being used when he is out of the office. When he has associated terminals, he can thus lock all his terminals with only one action.

As long as the subscription is locked, nobody can:

- Unlog the terminal
- See the call log
- Access the Aastra 5000 personal directory (on 5300, 5300ip, 6700i)
- Access the terminal programming
- Make external calls.

However, it remains possible to:

- Make emergency or internal calls
- See missed calls via LED or pop-up
- Access functions via code
- Press the keys.

802.1x protocol (from Asastra 5000 R5.1B)

The Aastra 5300ip terminals smartly support the 802.1x protocol (from [R5.1B](#)). The telephone sets will be identified as 802.1x on the Voice VLAN if the security policy requires that they are monitored for the same reasons as the PCs.

If a PC is connected to the phone, the phone will let 802.1x traffic pass and will enable the PC to be authenticated with the RADIUS server.

If authentication fails, the PC will not have network access (via the data VLAN) but the phone will still be able to access the network via the voice VLAN. It is the LAN switch which prevents the PC accessing the network; as regards the phone, it can access the network via the voice LAN (a particular configuration of the data switch is necessary).

If the PC becomes disconnected from the phone, the phone will transmit an "EAP-LOGOFF" message to the switch to prevent an unauthorised machine from connecting.

Authentication with the Aastra 5000 application – MD5 password management (from Aastra 5000 R5.1B)

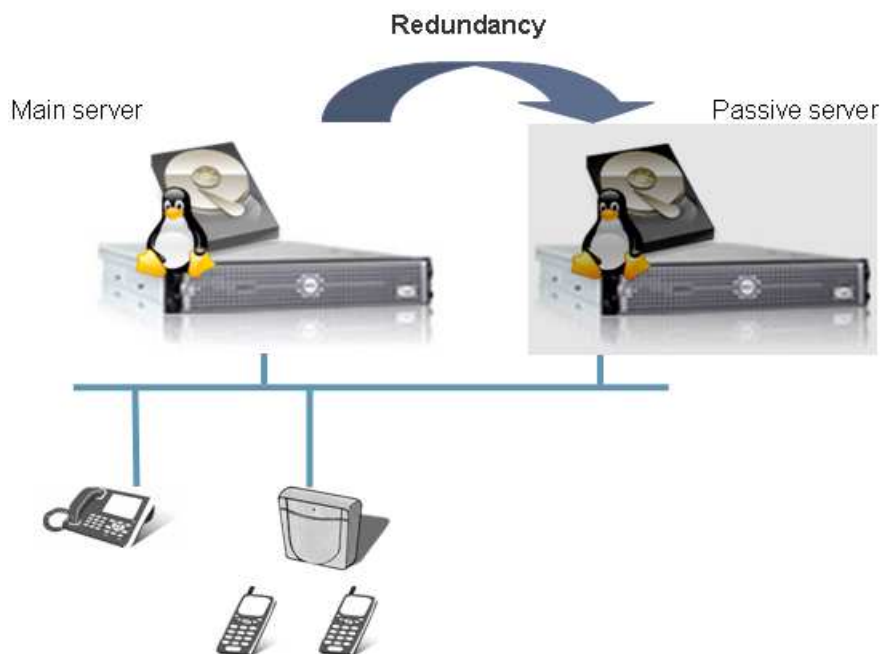
Users and terminals are authenticated with the A5000 application. The MD5 algorithm is used in this case.

In addition, the Aastra terminals support the login/logout function which enables each user to continue to use his telephone settings whatever the type of terminal on which he is connected.

Server redundancy and maintaining calls

The 5300ip terminals are able to maintain a call if the Aastra 5000 from R5.1B system fails. No user action is needed as the whole process is automatic, and can even be completely transparent particularly if when switching from one server to the other:

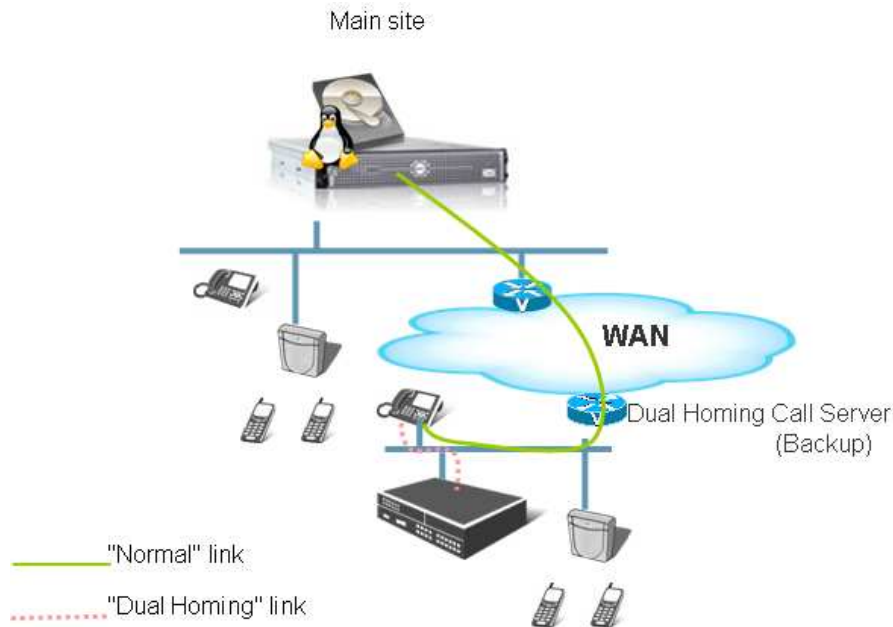
- the phone remains idle,
- the phone is on a call and the user takes no action (any action on the phone will break the call in progress).



Dual Homing

For more details please refer to chapter 20 of the Product Guide: Telephony Services.

This range of 5300ip terminals is also compatible with the Dual Homing service offered by the A5000 server and the AXS, XL and XD gateways from R5.1.



All the terminals are connected to the main server (Aastra 5000 Server in the diagram); the gateway which hosts the dual homing function is not an up-to-date image of the main server: it has a default configuration (copy of the reference subscription can be up to 24 hours behind). When the main server cannot be reached, only the data of the backed-up local subscribers is available on the Dual Homing gateway.

If the WAN link is broken, the IP subscribers are backed up via their dual homing subscriptions and are connected automatically to the gateway.

The user continues to have the same level of central call processing functionality (call, transfers, conference call, call by name...). However, the phone configuration cannot be modified by the user (key and volume programming can't be modified), except for the following functions: subscription unlocking, programming or cancellation of routine forwarding arrangement or filter programming.

Restrictions: the integrated voice mail is not available on the backup site.

The following facilities are also no more available: automatic call back, call group, wake-up programming, appointment programming.

Note: configuration's changes made at this time will not be reported to the main server (for example, if a forwarding is activated, it will remain such).

On the 5300ip phone, an icon shows to the user that the phone is connected to the backup site allowing the user to understand the reasons of functional losses.

When the set is idle and when the main site remains active, phone will automatically be re-connected to this main site.

Reminder:

Both incoming and outgoing call logs are not available on 5300ip when Dual Homing is activated (i.e. when the terminal is logged on its back up call server).

Logbooks are not duplicated from the main site to the backup site if:

- When the back up site is activated and when the logbooks on this back up site are full. These logbooks will be updated only after the activation of the Dual homing feature.

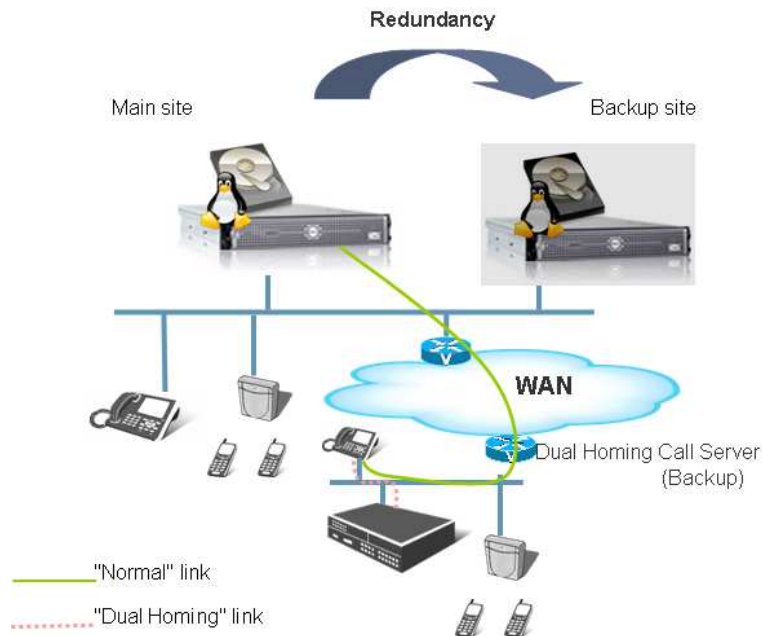
or:

- When the main site becomes active (back up site becomes inactive in a dual homing sense), logbooks on this main site are the same as before the dual homing's switching « main → back up

Example with an A5000 Call Server and a gateway:

Redundancy and Dual Homing

In some cases, redundancy and dual homing are combined.



36.12 Deployment methods of the Aastra5300ip terminals

The deployment of the Aastra 5300ip terminals can be achieved by different methods. :

- by manual login
- via the terminal Web interface
- via the TMA application, from a dedicated Excel form: this method is described in chapter TMA of the Product Guide.

Manual Login – on-line mode:

This type of deployment is directly achieved by the user on the set.

It requires a password associated to the subscription (4 digits). The set must be on-line.

Sequence of the manual login:

Prerequisite: the terminal has loaded its software version and the configuration files.

The manual login procedure is triggered by a code or an interactive key of the terminal. The terminal receives a display asking the user to enter the subscription number and the user password (4 digits). As soon as the checks are completed, the terminal is automatically logged on its subscription and is ready to be used.

Advantages of this deployment method:

- simplicity
- delegation to the end user.
- the same method is used for free seating.

Via the Web interface of the terminal:

This type of deployment must be achieved by the administrator. It can be done off-line which allows preparing the configuration before making it active.

It needs to have the administrator password.

The configuration of the terminal may be done anytime. The only parameter to configure in the terminal is the subscription number associated to the terminal. As soon as the terminal is connected, it logs on automatically and loads the software version and the configuration files.

Advantage of this method of deployment:

- Offline mode available (does not require the terminal to be connected to the iPbx)

Daily management

Once the terminal is connected to its subscription, it can be managed by the TMA (from release R5.1C). The inventory of terminals (of the TMA) shows terminals by their MAC addresses and the associated subscription numbers (which allows a more simple management).

Via the TMA application:

This type of deployment must be achieved by the administrator, and it requires the administrator password.

The administrator manages an Excel file with a list of terminals to deploy (MAC address, Directory Number). TMA automatically generates configuration files and hosts them on the FTP server.

When connected, all terminals are automatically logged on. They also load their software version and their configuration files (global and specific).

Advantages of this method of deployment:

- management centralized by the administrator
- no manual management of configuration files
- no handling on terminals

Disadvantages:

- Free seating impossible (MAC address associated to the directory number) with this method

For more information about TMA, thank you to consult Chapter TMA, of the Product Guide.